=> d iall 1

L2 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:342198 HCAPLUS
DOCUMENT NUMBER: 133:3756
ENTRY DATE: Entered STN: 23 May 2000
TITLE: L-**methionine** and its preparation with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity
INVENTOR(S): Usuta, Yoshihiro; **Kurahashi, Osamu**
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
INT. PATENT CLASSIF.:
MAIN: C12N015-09
SECONDARY: C12N001-21; C12N009-04; C12N009-10; C12N009-12; C12N009-88; C12P013-12; C12N015-09; C12R001-19
CLASSIFICATION: 16-1 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 3, 7
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000139471	A2	20000523	JP 1998-326717	19981117

PRIORITY APPLN. INFO.: JP 1998-326717 19981117
ABSTRACT:
Described is a method of manufg. L-**methionine** by cultivating a Escherichia coli mutant with defective repressors (gene metJ), enhanced homoserine transsuccinylase (gene metA) activity, and, optionally, decreased S-adenosyl **methionine** synthetase activity. Furthermore, the mutants may also have the enhanced activities of cystathionine-.gamma.-synthase and aspartokinase-homoserine dehydrogenase II. Also claimed are the S-adenosyl ***methionine*** synthetase (metK) mutants with substitution mutations at 27-Arg.fwdarw.Cys, 296-Ile.fwdarw.Ser, 298-Pro.fwdarw.Leu, or a combination of them. The mutants are free of the synergistic inhibition by L-***methionine*** and S-adenosyl **methionine**. Prodn. of L-***methionine*** with improved efficiency by using the Escherichia coli mutants was demonstrated.

SUPPL. TERM: Escherichia mutant fermn **methionine**; homoserine transsuccinylase mutant Escherichia; S adenosyl **methionine** synthetase mutant Escherichia
INDEX TERM: Escherichia coli
Fermentation
(L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)
INDEX TERM: Protein sequences
(of S-adenosyl **methionine** synthetase mutants of Escherichia coli)
INDEX TERM: Transcription factors
ROLE: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(repressors; L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)
INDEX TERM: Mutation
(substitution; L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)
INDEX TERM: 9012-52-6, Adenosyltransferase, **methionine**
ROLE: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use,

unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

INDEX TERM: 63-68-3P, L-**Methionine**, preparation
ROLE: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

INDEX TERM: 9012-50-4, Aspartokinase 9028-13-1, Homoserine dehydrogenase 9030-70-0, Cystathionine-.gamma.-synthase 62213-51-8, Homoserine transsuccinylase
ROLE: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

INDEX TERM: 271238-80-3 271238-81-4 271238-82-5 271238-83-6 271238-84-7 271238-85-8
ROLE: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(amino acid sequence; L-**methionine** and prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

INDEX TERM: 238086-24-3 271240-06-3 271240-07-4 271240-08-5 271240-09-6 271240-10-9 271240-11-0 271240-12-1 271240-13-2 271240-14-3 271240-15-4 271240-16-5 271240-17-6 271240-18-7 271240-19-8 271240-20-1 271240-21-2 271240-22-3 271240-23-4 271240-24-5 271240-25-6 271240-26-7 271240-27-8 271240-28-9 271240-29-0 271240-30-3
ROLE: PRP (Properties)
(unclaimed nucleotide sequence; l-**methionine** and its prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

INDEX TERM: 198909-85-2
ROLE: PRP (Properties)
(unclaimed protein sequence; l-**methionine** and its prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

INDEX TERM: 271241-86-2
ROLE: PRP (Properties)
(unclaimed sequence; l-**methionine** and its prepn. with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity)

=> d ibib ab 1

L7 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:342198 HCAPLUS
DOCUMENT NUMBER: 133:3756
TITLE: L-methionine and its preparation with transgenic Escherichia coli mutants with defective repressor and enhanced homoserine transsuccinylase activity
INVENTOR(S): Usuta, Yoshihiro; Kurahashi, Osamu
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000139471	A2	20000523	JP 1998-326717	19981117

PRIORITY APPLN. INFO.: JP 1998-326717 19981117

AB Described is a method of manufg. L-methionine by cultivating a Escherichia coli mutant with defective repressors (gene metJ), enhanced homoserine transsuccinylase (gene metA) activity, and, optionally, decreased S-adenosyl methionine synthetase activity. Furthermore, the mutants may also have the enhanced activities of cystathionine-.gamma.-synthase and aspartokinase-homoserine dehydrogenase II. Also claimed are the S-adenosyl methionine synthetase (metK) mutants with substitution mutations at 27-Arg.fwdarw.Cys, 296-Ile.fwdarw.Ser, 298-Pro.fwdarw.Leu, or a combination of them. The mutants are free of the synergistic inhibition by L-methionine and S-adenosyl methionine. Prodn. of L-methionine with improved efficiency by using the Escherichia coli mutants was demonstrated.